

On-Shore Wind

On-Shore Wind Zoning Guidelines

Responsibility for Siting

Local governments exercise considerable authority over commercial-scale wind facility siting in 48 of the 50 states. In 34 states, local governments have complete autonomy to regulate the siting of most or all commercial-scale wind facilities. A few states authorize local governments to regulate wind facility siting, but make the scope of local regulation subject to limitations defined by state law. Eleven states set size thresholds for state regulatory involvement - with local governments in these states regulating smaller facilities and state boards regulating larger ones (either exclusively or concurrently with local governments). In just under a third of the states, siting of most or all commercial-scale wind facilities requires approval by both state and local government bodies. Only a few states reserve the regulation of siting of all or virtually all commercial-scale wind facilities to state boards and commissions.

Wind Zoning in Michigan

Michigan is one of 34 states that have given local government complete autonomy to regulate the siting of most or all commercial-scale wind facilities. For the most part, the local regulations fall under the jurisdiction of local zoning.

Key Resources for On-Shore Wind

Below are key resources that public officials and interested parties can utilize to create the zoning ordinances for on-shore wind:

[Environmental Law and Policy Center](#) - *The Solar and Wind Energy Supply Chain in Michigan*, March 2011

Consumers Energy, [Renewable Energy Program](#)

DTE Energy, *GreenCurrents Program* - [GreenCurrentsSM](#) is DTE's voluntary renewable energy program. The program is designed to reduce carbon dioxide emissions and strengthen Michigan's energy independence.

Great Lakes Wind Council (GLWC) [Final Report](#) (10/2010)

Michigan Wind Energy Resource Zone (WERZ) Board [Final Report](#)

Michigan adopted a Renewable Energy Portfolio Standard (Public Act 295) that requires 10% of our energy to come from renewable energy sources (principally wind and solar). As part of implementing this program, the State worked to identify areas in the state that had high wind potential as well as to clarify legal, safety, and economic issues and jurisdictions associated with wind turbine installations. Please refer to the March 2012 [Report on the Implementation of Public Act 295 \(Wind Energy Resource Zones\)](#) for more information.

Benefits and Myths of Wind Energy

NREL *10 Benefits and 10 Myths about Wind Power*:

- [Benefits](#)
- [Myths](#)

[NREL County Commissioners Planning Book](#) - distributed at the 2007 meeting of the Michigan Association of Counties *State of the State Wind Report: Michigan* (BES, 4/2011)

[The National Wind Coordinating Council](#)

[The American Wind and Wildlife Institute](#)

[The Great Lakes Wind Collaborative](#)

The [MSU Wind Energy Siting Bulletin](#) provided to Michigan Townships Association, Michigan Municipal League, Michigan Environmental Council

The [Michigan Sustainable Energy Coalition](#), which convened the October 2008 conference to explain 2008 PA 295, the MI RPS

[Utility Wind Integration Group](#) - *Setting siting and wind integration standards through utility experience*

U.S. Fish and Wildlife Service, [U.S. Fish and Wildlife Service Created Draft Voluntary, Land-Based Wind Energy Guidelines](#)

[U.S. Department of Energy, Wind Powering America: Myths and Benefits of Wind Energy](#)

[Windustry](#)

[Wind on the Wires](#)

U.S. Department of Energy, Energy Efficiency and Renewable Energy, Wind and Water Website

The Wind and Water Power Program works to improve the performance, lower the costs, and accelerate the deployment of innovative wind and water power technologies. Greater use of the nation's abundant wind and water resources for electric power generation will help stabilize energy costs, enhance energy security, and improve our environment.

Examples of Zoning Guidelines for On-Shore Wind

The Environmental Law Institute report on State Enabling Legislation for Commercial-Scale Wind Power (see below) provides examples Model Wind Ordinances provided by ten different states. In 2009, the Bureau of Energy Systems (now Michigan Energy Office), published the Sample Zoning for Wind Energy Systems. Since that time, a number of organizations and communities have embarked on their own wind projects and have developed zoning ordinances. The MEO recommends that communities review the examples of wind policies at the local government level in Michigan.

The U.S. Department of Energy's [Wind Powering America](#) initiative provides examples of local wind zoning ordinances from a number of communities in the state, as well as information on best practices. The site also provides a link to the U.S. Department of Energy publication, [Wind Energy Ordinances](#).

Please Note: the MEDC – Michigan Energy Office does not endorse nor offer these ordinances as a Best Practices. These ordinances are provided only as examples of Zoning Ordinances currently in use in the state and do not constitute a complete list. The MEDC Michigan Energy Office does highlight the Gratiot County Wind Energy Ordinance as notable because it was unanimously adopted as Michigan's first county-wide wind energy zoning ordinance.

[City of Holland, Zoning Amendment](#)

[Centerville Township Zoning Ordinance for Commercial Wind Energy Systems](#)

[Emmet County Zoning Ordinance](#)

Environmental Law Institute Report, [State Enabling Legislation for the Commercial-Scale Wind Power Siting and the Local Government Role, 2011](#)

[Gratiot County Wind Energy Ordinance](#)

Great Lakes Wind Collaborative, 2011, *Best Practices for Sustainable Wind Energy Development in the Great Lakes Region*, June 2011

[Oliver Township Land Use Plan](#)

[Otsego County Ordinance No. 18.5 for Wind Turbine Generators and Anemometers](#)

[Riga Township Ordinance No. 32, Amendment to the 1974 Zoning Ordinance of Riga Township](#)

[Shiawassee County Wind Ordinances](#)

Example of Community Energy Planning

City of Holland, MI, [Renewable and Efficient Energy Plan](#)